



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/882,314	06/14/2001	Ullas Gargi	10006285-1	8423

7590 02/26/2004  
HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER
----------

VU, NGOC K

ART UNIT	PAPER NUMBER
----------	--------------

2611

DATE MAILED: 02/26/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/882,314

Applicant(s)

GARGI, ULLAS

Examiner

Ngoc K. Vu

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7,9,11-17 and 19 is/are rejected.
- 7) ☒ Claim(s) 8,10 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2-3.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Specification*

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

Claim 16 is objected because the limitation “video processor is configured to realign the reduced-scale presentation in response to detection by the detector of a change in a commercial broadcast from a first program category to a second program category” is not disclosed in the specification.

Claim 19 is objected because the limitations “memory connected to store historical information” and “said memory being accessed by said video processor to control arrangement of said clusters and said reduced-scale presentations” are not disclosed in the specification.

### *Claim Objections*

2. Claims 1, 3 and 15 are objected to because of the following informalities:

Claim 1 is objected because there is no antecedent basis for the term “said program categories” in line 12. It is noted that the term “a program category” in line 4 is previously defined as singular. Correction is required.

Claim 3 is objected because there is no antecedent basis for the term “said step of determining associations” in lines 2-3. It is noted that the term “determining an association” in line 3 of claim 1 is previously defined as singular. Correction is required.

Claim 15 is objected because there is no antecedent basis for the term “said program categories” in lines 11-12. It is noted that the term “a program category” in line 4 is previously defined as singular. Correction is required.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 3, 9, 15 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Terasawa et al (US 6,147,714 A).

Regarding **claim 1**, Terasawa discloses an interface method for viewing and selecting among a variety of currently available commercial broadcasts (providing an improved method for displaying an electronic program guide and selecting a desired program – see col. 1, lines 7-14) comprising the steps of:

determining an association of each said commercial broadcast with a program category (Namely, if the program which is currently aired on a first channel is a movie, a still picture of the movie is captured and written into the EPG area 35A. If the currently-aired program is a movie on a subsequent channel, i.e., a second channel, it is captured as a second still picture of the movie category. If the program is not a movie, the picture is not captured since its category is different. Subsequently, it is judged for all 80 broadcast channels and for all categories – see col. 18, line 46 to col. 19, line 32); and

within a single viewing screen, simultaneously presenting video broadcast information directly from each of said commercial broadcasts (a program guide of the still pictures are displayed as shown in figure 32, wherein the program categories are arranged in the horizontal direction, while the still pictures of each category are sequentially displayed in the vertical

direction. Namely, in the leftmost column of figure 32, the still pictures of all the movies to be broadcast on a predetermined channel are displayed, and in the second column from the left, the still pictures of all the sport programs to be broadcast on the respective channels are displayed – see col. 17, lines 53-63), including:

(1) generating reduced-scale presentations of each of said commercial broadcasts, said reduced-scale presentations being based on said video broadcast information (generating still pictures of programs as reduced-size frame to be broadcast on the respective channels. Particularly, the CPU 29 incorporates the decoded still-picture data and converts it to the reduced-size frame whose data is once again output to the MPEG video decoder 25. The data can thus be displayed as the reduced-size frame by use of the OSD function of the decoder 25 – see col. 15, lines 48-53); and

(2) dynamically clustering said reduced-scale presentations in correspondence with said program categories (grouping the still pictures of the programs in correspondence with program categories. For example: if the currently-aired program is a movie on a first channel, a still picture of the movie is captured and written into the EPG area 35A; if the currently-aired program is a movie on a subsequent channel, i.e., a second channel, it is captured as a second still picture of the movie category. A search similar to the above described processing is made for all the channels and it is further judged whether all the categories have been searched – see col. 17, lines 54-60; col. 18, lines 47-67; col. 19, lines 1-32), including displaying a plurality of clusters of said reduced-scale presentations in which each said cluster includes said reduced-scale presentations for all of said commercial broadcasts associated with said program category that corresponds to said cluster (displaying a plurality of groups of the still pictures in which each group includes the still pictures for all of broadcast channels associated with program category that corresponds to the group. As shown in figure 32, the program categories are

arranged in the horizontal direction, while the still pictures of each category are sequentially displayed in the vertical direction. Namely, in the leftmost column of figure 32, the still pictures of all the movies to be broadcast on a predetermined channel are displayed, and in the second column from the left, the still pictures of all the sport programs to be broadcast on the respective channels are displayed – see col. 17, col. 54-63 and figure 32);

thereby utilizing said viewing screen to display each said cluster as a totality of said commercial broadcasts that are currently available within said program category that corresponds to said cluster (the still pictures of programs of each category are sequentially displayed in the vertical direction, while the program categories are arranged in the horizontal direction. It is noted that these programs are currently-aired programs – see col. 17, lines 54-58; col. 18, lines 56-67; col. 19, lines 1-32 and figure 32).

Regarding **claim 2**, Teresawa discloses the interface method of claim 1 wherein said step of dynamically clustering includes varying a number of said reduced-scale presentations in said clusters as a function of changes in said commercial broadcasts (the program categories will vary in size of the still pictures, depending upon the number of programs currently available within each category. Namely, when there are 80 broadcast channels, the first through eightieth channels are searched, and the currently-aired programs are searched and captured into their corresponded categories as interpreted in claim 1, step (2) above. For example, 3 still pictures of programs in “movie” category, 4 still pictures of programs in “sport” category, 2 still pictures of programs in “music” category, etc., as shown in figure 32 – see col. 18, line 46 to col. 19, line 43 and figure 32).

Regarding **claim 3**, Terasawa discloses that wherein said commercial broadcasts are television broadcasts carried via television channels (for example, the still pictures of the movies to be broadcast on predetermined channel, the still pictures of sport programs to be broadcast

on the respective channels – see col. 17, lines 58-63), said step of determining associations including monitoring reception of said television channels at a location of said viewing screen to detect tag information that is specific to current programs available via said television channels (demultiplexor 24 at receiver 2 detects “tag information” such as paket ID (PID) included in the header, i.e., program\_number. It is noted that the program\_number is used for specifying the broadcast channel - see col. 10, lines 10-20 and figure 18; col. 14, lines 43-52; col. 15, lines 6-13).

Regarding **claim 9**, Terasawa discloses the step of generating the reduced-scale presentations includes displaying incoming television programs in real time (the still images are currently aired television programs – see col. 19, lines 10-16 and 25-32; col. 17, lines 53-63), such that said reduced-scale presentations are dynamic (the still images are scrolled up or down when the user presses button 135 or button 136 on the remote control 5 – see col. 20, lines 37-56).

Regarding **claim 15**, Terasawa discloses a system for viewing and selecting among a variety of currently available commercial broadcasts (providing an apparatus for displaying an electronic program guide and selecting a desired program – see col. 1, lines 7-14 and figures 20 and 23) comprising:

a detector (29) configured to identify each said commercial broadcast with a program category (CPU 29 executes processing to write the still pictures of the individual broadcast channels into the EPG area 35A of the data buffer memory 35. Namely, if a program which is currently aired on a first channel is a movie, a still picture of the movie is captured and written into the EPG area 35A. If the currently-aired program is a movie on a subsequent channel, i.e., a second channel, it is captured as a second still picture of the movie category. If the program is not a movie, the picture is not captured since its category is different. Subsequently, it is judged

for all 80 broadcast channels and for all categories – see col. 18, line 46 to col. 19, line 32 and figure 29);

a video processor (25 and 29) connected to receive said commercial broadcasts and configured to output reduced-scale presentations of said commercial broadcasts, said reduced-scale presentations being video broadcast information (the CPU 29 incorporates the decoded still-picture data and converts it to the reduced-size frame whose data is once again output to the MPEG video decoder 25 – see col. 15, lines 48-53 and figure 23); and

a viewing screen (4) cooperative with said detector and said video processor to display said reduced-scale presentations in clusters that have a one-to-one correspondence with said program categories, with all of said commercial broadcasts that are identified with one of said program categories being simultaneously displayed (the CPU causes the MPEG video decoder 25 to generate OSD data of the information screen of the currently-aired program by use of the OSD function of the decoder 25 and to display it onto the monitor 4. Furthermore, a program guide as shown in figure 32 of the still pictures, i.e., currently-aired programs, is displayed. The program categories are arranged in the horizontal direction, while the still pictures of each category are sequentially displayed in the vertical direction. Namely, in the leftmost column of figure 32, the still pictures of all the movies to be broadcast on a predetermined channel are displayed, and in the second column from the left, the still pictures of all the sport programs to be broadcast on the respective channels are displayed – see col. 17, col. 25-29 and 54-63; figures 20 and 32).

Regarding **claim 16**, Terasawa discloses the system of claim 15 wherein said video processor is configured to realign said reduced-scale presentations in response to detection by said detector of a change in a commercial broadcast from a first program category to a second program category (Specifically, Terasawa discloses that if a program which is currently aired on



Art Unit: 2611

a first channel is a movie, a still picture of the movie is captured and written into the EPG area 35A. If the currently-aired program is a movie on a subsequent channel, i.e., a second channel, it is captured as a second still picture of the movie category. If the program is not a movie, the picture is not captured since its category is different. Subsequently, it is judged for all 80 broadcast channels and for all categories – see col. 18, line 46 to col. 19, line 32. Furthermore, Terasawa discloses that a program guide of the still pictures, i.e., currently-aired programs, is displayed as shown in figure 32. The program categories are arranged in the horizontal direction, while the still pictures of each category are sequentially displayed in the vertical direction. Namely, in the leftmost column of figure 32, the still pictures of all the movies to be broadcast on a predetermined channel are displayed, and in the second column from the left, the still pictures of all the sport programs to be broadcast on the respective channels are displayed – see col. 17, col. 25-29 and 54-63; figure 32). Thus, it is understood that the system of Terasawa does “realign” or adjust the still pictures in response to a change in program categorizing of a broadcast channel from one category to other category with respect to time interval. For example, still picture of a broadcast channel is captured as news category during 8:00am-9:00am which is arranged in the first column category “movie” in figure 32 , however, a new still picture of that broadcast channel is captured as a sport category during 9:30am-11am).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Terasawa et al (US 6,147,714 A) in view of Agata et al (US 20020054017 A1).

Regarding **claim 6**, Terasawa discloses the interface method of claim 1 further comprising step of enabling said user to select any said reduced-scale presentation in any said cluster for viewing in a full-screen mode of operation (when the user further presses the select button 131, the CPU 29 controls the tuner 21 so that the program defined by the cursor can be received. This makes it possible to display the selected program, i.e., the reduced-size frame, with its original size on the monitor 4 – see col. 16, lines 27-31).

Terasawa discloses arranging the still pictures of the programs in groups correspondence with program categories (see col. 17, lines 54-60; col. 18, lines 47-67; col. 19, lines 1-32). Terasawa does not disclose the features “overlapping said reduced-scale presentations with at least one said cluster” and “enabling a user to select which said reduced-scale presentation in said at least one cluster has the appearance of being the foremost reduced-scale presentation”. However, Agata et al discloses that the thumbnail icon of “name 1” foremost of a thumbnail alignment is displayed as the selected thumbnail icon as shown in figure 7. The thumbnail icons other than the selected thumbnail icon are displayed overlapped each other (see figure 7 and page 5, paragraphs 0107 and 0110). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Terasawa by displaying a thumbnail icon of foremost of a thumbnail alignment as the selected thumbnail icon and the thumbnail icons other than the selected thumbnail icon are displayed overlapped each other as taught by Agata for purposes not only to save space on the screen, but also to allow users to easily and surely browse content.

Regarding **claim 11**, Terasawa discloses an interface method for viewing and selecting among a variety of television channels (providing an improved method for displaying an

electronic program guide and selecting a desired program – see col. 1, lines 7-14) comprising the steps of:

receiving program transmissions via said television channels (when radio waves are received from a normal transponder, the reduce-size still-picture data and the brief program explanation data for 80 broadcast channels, and the detailed program explanation data concerning the current program and the subsequent program for 80 channels, are captured into the EPG area 35A – see col. 15, lines 15-22);

recurringly identifying a program category for each said television channel on a basis of a currently available program being broadcast via said television channel (Namely, if the program which is currently aired on a first channel is a movie, a still picture of the movie is captured and written into the EPG area 35A. If the currently-aired program is a movie on a subsequent channel, i.e., a second channel, it is captured as a second still picture of the movie category. If the program is not a movie, the picture is not captured since its category is different. Subsequently, it is judged for all 80 broadcast channels and for all categories – see col. 18, line 46 to col. 19, line 32);

generating reduced-scale presentations of each said currently available program from video signals of said currently available program (generating still pictures of programs as reduced-size frame to be broadcast on the respective channels. Particularly, the CPU 29 incorporates the decoded still-picture data and converts it to the reduced-size frame whose data is once again output to the MPEG video decoder 25. The data can thus be displayed as the reduced-size frame by use of the OSD function of the decoder 25 – see col. 15, lines 48-53);

displaying each said presentation on a single screen, including grouping said presentations on a basis of said program categories, thereby displaying a number of groups that corresponds to the number of program categories (displaying a plurality of groups of the still

Art Unit: 2611

pictures in which each group includes the still pictures for all of broadcast channels associated with program category that corresponds to the group. As shown in figure 32, the program categories are arranged in the horizontal direction, while the still pictures of each category are sequentially displayed in the vertical direction. Namely, in the leftmost column of figure 32, the still pictures of all the movies to be broadcast on a predetermined channel are displayed, and in the second column from the left, the still pictures of all the sport programs to be broadcast on the respective channels are displayed – see col. 17, col. 54-63 and figure 32);

enabling a viewer to remotely control browsing through said groups and browsing among said presentations within a specific group (when the program-table button switch 144 of the remote commander 5 is manipulated by a user while a normal program is received and displayed on the monitor 4, a data stream formed of the five reduced-size frames is displayed on the screen of the monitor 4. The user uses the cursor left button 137 or cursor right button 138 to shift the cursor in the left or right directions and select button 131 to select one of the reduced-size frames. It is noted that five reduced-size frames is part of the program table shown in figure 32 when the user presses the switch 144 every third time since the IRD 2 is turned on. These reduced-size frames are still pictures, each still picture presents each category – see col. 16, lines 14-27; col. 17, line 48 to col. 18, line 29); and

enabling said viewer to select a particular said presentation for full-screen viewing of the program from which said particular presentation was generated (when the user further presses the select button 131, the CPU 29 controls the tuner 21 so that the program defined by the cursor can be received. This makes it possible to display the selected program with its original size on the monitor 4 – see col. 16, lines 27-31).

Terasawa discloses arranging the still pictures of the programs in groups correspondence with program categories (see col. 17, lines 54-60; col. 18, lines 47-67; col. 19,

lines 1-32). Terasawa does not disclose "each well populated group having overlapping presentations". However, Agata discloses that the thumbnail icons other than the selected thumbnail icon, i.e., "name 1", are displayed overlapped each other (see figure 7 and page 5, paragraphs 0107 and 0110). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Terasawa by displaying the thumbnail icons overlapped each other as taught by Agata for purposes not only to save space on the screen, but also to allow users to easily and surely browse content.

7. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Terasawa et al (US 6,147,714 A) in view of Noguchi et al. (US 6,163,345 A).

Regarding **claim 4**, Tarasawa discloses the step of enabling a user to initiate a genre-dividing mode displaying at least one cluster on a basis of genres. For example, if a user presses button 144 immediately after the IRD 2 is turned on, the categorized reduce-size still pictures of the typical frames of the programs to be broadcast on the respective channels, as shown in figure 32, are displayed. The program categories, such as movies, sport, music, drama, news, etc., are arranged in the horizontal direction, while the still pictures of each category are sequentially displayed in the vertical direction (see col. 18, lines 15-20; col. 17, lines 54-58 and figure 32).

Tarasawa does not disclose that at least one category or cluster is split into separate sub-categories or sub-clusters on the basis of genres. However, Noguchi teaches enabling the user to select one category, i.e., MOVIES category, then the MOVIES category is split into separate subcategories, i.e., CHILDREN, COMEDY, DRAMA, etc...for further selection as shown in figures 13A-B (see figure 13A-B; col. 9, lines 37-56). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the

system of Terasawa by splitting the selected category into separate sub-categories as taught by Noguchi in order to allow the user easily focus on the type of program her/his prefers.

Regarding **claim 5**, Terasawa as modified Noguchi discloses the step of enabling the user includes providing cluster splitting into the sub-clusters on the basis of different sports and on the basis of different movie genres (Noguchi teaches enabling the user to select one category, i.e., MOVIES category, then the MOVIES category is split into separate subcategories, i.e., CHILDREN, COMEDY, DRAMA, etc...for further selection as shown in figures 13A-B. The step of selecting SPORTS category and splitting into subcategory is similar as selecting MOVIES category above, not shown - see figure 13A-B; col. 9, lines 37-56).

8. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Terasawa et al (US 6,147,714 A) in view of White (US 2002/0056098 A1)

Regarding **claim 17**, Terasawa discloses video processor 29 is configured to incorporate the decoded still picture data and converts it to the reduced-size frame whose data is once again output to the MPEG video decoder 25 (see figure 23 and col. 15, lines 48-51).

Terasawa does not explicitly disclose continuously update the video broadcast information. However, White teaches that depending on the scan rate of the scanning system the other channel display screens could be updated continuously, so that they each appear to display a live signal (see page 4, 0052). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Terasawa by updating continuously the video broadcast information as taught by White to allow a user to see updated content of the broadcast program or channel.

9. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Terasawa et al (US 6,147,714 A) in view of Ohkura et al. (US 5,737,029 A).

Regarding **claim 19**, Terasawa discloses memory stores historical information, e.g., the history for the last four weeks received by the tuner 21 (see col. 13, lines 10-15). Terasawa does not disclose arranging reduced-scale presentations within clusters or the still images within categories as a function of the historical information.

However, Ohkura discloses that a controller displays labels of categories on the top row of the display screen and displays pictures of broadcasting channels of the leftmost category, which have been received in the last four weeks in small frames in the leftmost column of the screen downwardly in the order of the frequency of reception. In this manner, the system arranges the small frame pictures of the received broadcasting channels in the order of the frequency of reception or favorite program list (see abstract, col. 7, line 63 to col. 9, line 45). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Terasawa by arranging the small frame pictures of the received broadcasting channels in the order of the frequency of reception or favorite program list as taught by Ohkura in order to allow a user easily select the a desired channel or program from the small frame pictures of the favorite program list.

10. Claims 7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Terasawa et al (US 6,147,714 A) in view of Agata et al (US 20020054017 A1) and further in view of Ohkura et al. (US 5,737,029 A).

Regarding **claims 7 and 12**, Terasawa discloses memory stores historical information, e.g., the history for the last four weeks received by the tuner 21 (see col. 13, lines 10-15). Terasawa does not disclose arranging reduced-scale presentations within clusters or the still images within categories as a function of the historical information.

However, Ohkura discloses that a controller displays labels of categories on the top row of the display screen and displays pictures of broadcasting channels of the leftmost category,

which have been received in the last four weeks in small frames in the leftmost column of the screen downwardly in the order of the frequency of reception. In this manner, the system arranges the small frame pictures of the received broadcasting channels in the order of the frequency of reception or favorite program list (see abstract, col. 7, line 63 to col. 9, line 45). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Terasawa by arranging the small frame pictures of the received broadcasting channels in the order of the frequency of reception or favorite program list as taught by Ohkura in order to allow a user easily select the a desired channel or program from the small frame pictures of the favorite program list.

11. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Terasawa et al (US 6,147,714 A) in view of Ohkura et al. (US 5,737,029 A) and further in view of Noguchi et al. (US 6,163,345 A).

Regarding **claim 13**, Terasawa shows providing a plurality of program categories such as categories MOVIE, SPORT, MUSIC, DRAMA, and NEWS as shown in figure 32 (see figure 32). Terasawa does not show a step of enabling the viewer to selectively increase or decrease the number of groups by increasing or decreasing the number of program categories. However, Noguchi teaches enabling a user to select one program category or all program categories as shown in figure 13A (see figure 13A). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Terasawa by selecting one program category or all program categories as selectively decreasing or increasing the number of groups as taught by Noguchi in order to allow a user to selectively view less or more desired categories.

Regarding **claim 14**, Terasawa as modified Noguchi further teaches the step of enabling increases includes providing cluster splitting according to genres (providing sub-categories, i.e.,



sub-categories of MOVIES category as shown in figure 13B – see figure 13B) and includes merging previously split clusters (adding or grouping all sub-categories by selecting “ALL” - see figure 13B and col. 9, lines 46-51).

***Allowable Subject Matter***

12. Claims 8, 10 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The closest prior art, Terasawa (US 6,147,714 A) discloses that program categories are arranged in the horizontal direction, while the still pictures of each category are sequentially displayed in the vertical direction, wherein the still pictures of each category to be broadcast on the respective channels. Terasawa fails to teach or suggest the limitations “cycling an arrangement of said overlapping reduced-scale presentations in said at least one cluster such that each said overlapping reduced-scale presentation is periodically said foremost reduced-scale presentation” as recited in **claim 8**; “filtering television commercials, such that said reduced-scale presentations are static during said television commercials” as recited in **claim 10**; and “a commercial filter enabled to detect commercials and to inhibit said continuous updating during commercial times” as recited in **claim 18**.

***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kamen et al. (US 6,421,067 B1) disclose an EPG providing pictograms and/or logos to indicate to a viewer the television programs being displayed on a TV.

Sezan et al. (US 6,236,395 B1) disclose a system for managing audiovisual information.

Eggen et al. (US 6,388,715 B1) disclose a TV receiver for allowing a user to navigate through an overview of scheduled TV programs each belonging to one of a plurality of program categories.

Oosterhout et al. (US 6,405,371 B1) disclose a method of navigating through television programs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc K. Vu whose telephone number is 703-306-5976. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NV  
February 13, 2004

  
**HAITRAN**  
**PATENT EXAMINER**